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BEFORE THE BOARD OF PATENT APPEALS

AND INTERFERENCES

Application Number: 10/661,263

Filing Date: September 12, 2003

Appellant(s): BERTI ET AL.

William C. Gehris

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/22/2010 appealing from the Office action mailed 12/29/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after the non-final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The 112 2nd paragraph rejections of claims 1, 2, 7 and 13-25 have been withdrawn. The Amendments to the claims were allowed to clarify any issues regarding the indefiniteness of the claims. However, the dependent claims of 3-5 are rejected under 112 2nd paragraph for the same reasons the claims 1 and 13 were rejected.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5930468	Zingher et al	8-1997
5010820	Loffler	2-1990
4572652	Tada et al	8-1992
2003/0161292 A1	Silvester	2-2002
5447102	Pfeiffer et al	4-1994
7064848	Jackson et al	12-2000
2003/0011805 A1	Yacoub	6-1996
2001/0039461 A1	Bauer	12-2000
2003/0149747 A1	Rai et al	2-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 3-5, the claim limitations of "determination of the optimum procedure" and “the order of processes” both render the respective claims indefinite. Are these phrases referring to the adjustment and maintenance operations mentioned in claim 1? If so, it is recommended that the intended phrase be included in the indefinite claim phrase in question or related the language to the order of adjustment and maintenance operations in a clear manner. Claim 6 is also rejected because of its dependency.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 8, 13, 17-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468 (USP 5930468) in view of Löffler '820 (USP 5010820).

Re claim 1: Zingher '468 discloses a method for determining an optimum procedure for a job change on a printing-material processing machine having at least one control computer, the method comprising:

comparing first data of a first machine job to second data of a subsequent machine job using the at least one control computer (i.e. in Zingher '468, the image contents of the print jobs, considered as the data of a machine job, are compared to one another. The above feature is performed since the image contents of individual print jobs are compared to one another in pairs or twos. This means that image contents of a first print job is compared to the image contents of a subsequent print job. The image contents are analogous to the first and second print data. This process is controlled by the data processing device, which is able to compare print jobs in pairs since an order

of the processing of a current print job is based on the comparison of the current print job and the previous print job; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49), and

establishing an order of the adjustment and maintenance operations to be carried out during the job change between the first machine job and the subsequent machine job as a function of the comparing step (i.e. regarding the claim feature, the Zingher reference discloses re-sorting the print contents of jobs within the system by comparing the image contents of each job to one another in order to limit the amount of working steps to be applied between jobs. Some of the working steps can include changing the print form, changing the ink profile or film thickness gradient in the inking unit of the printing device. With the printing jobs changing from one job to another, the system determines how to transition to the next job with the slightest amount of adjustment in the printing system. As described in Applicant's specification, the specification discloses establishing an order of adjustments and maintenance operations as changing the printing ink. However, other adjustment and maintenance operations can be performed in order to transition a printing device to print a subsequent job besides the changing of printing ink. Since the reference of Zingher '468 discloses the feature of changing an ink profile and the reference can perform changing this profile using jobs of single color being transitioned to jobs of multiple colors, it is understood that the process of changing the printing ink in terms of color is performed. In terms of establishing an order of these operations, with each job, a certain change can occur. To transition from job 1 to job 2, a slight change in ink profile may be needed, then changing to job 3 may

require a change in the printing form and a change to job 4 may require a film thickness gradient change in the inking unit. Since these different operations can be different depending on the content of the jobs, these operations change, but they have to be established when going from job to job in the system in order to ensure a minimum amount of work for the printing system while changing from job to job. Therefore, since several adjustment processes can occur between different jobs in different ways and this is established in order for the jobs to be processed, it is believed that the above feature is performed; See col. 3, ll. 57-67, col. 4, ll. 1-17, col. 8, ll. 15-67 and col. 9, ll. 1-17).

However, Zingher '468 fails to specifically teach wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job.

However, this is well known in the art as evidenced by Löffler '820. Löffler '820 discloses wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job (i.e. like the invention of Zingher, the Löffler reference is used to output printing information using production equipment (same field of endeavor). However, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink metering elements and ink duct rollers for removal of an

old profile. With the performance of adjusting these two different elements, the newly added claim feature above is performed; see col. 5, lines 14-31).

Therefore, in view of Löffler ‘820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job, incorporated in the device of Zingher '468, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps which occur on different components of the printing press (as stated in Löffler ‘820 col. 4, ln 49-58).

Re claim 2: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above Zingher ‘468 discloses the method as recited in claim 1 wherein the order of operations to be carried out during the job change is calculated in such a manner that a set-up time or a downtime during the job change is minimized (i.e. the sequence in which individual print jobs are carried out one after another during which a job change occurs in performed in a manner in which the setting time needed to change the print job is minimal; see col. 3, lines 1-66, col. 4, lines 1-17).

Re claim 8: A device for determining an optimum procedure for a job change on a printing-material processing machine comprising:

at least one control computer comparing first data of a first machine job to second data of a subsequent machine job (i.e. in Zingher '468, the image contents of the print jobs, considered as the data of a machine job, are compared to one another. The above feature is performed since the image contents of individual print jobs are compared to one another in pairs or twos. This means that image contents of a first print job is compared to the image contents of a subsequent print job. The image contents are analogous to the first and second print data. This process is controlled by the data processing device, which is able to compare print jobs in pairs since an order of the processing of a current print job is based on the comparison of the current print job and the previous print job; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49), and

executing program steps as a function of the comparing step to establish an order of operations to be carried out during the job change (i.e. regarding the claim feature, the Zingher reference discloses re-sorting the print contents of jobs within the system by comparing the image contents of each job to one another in order to limit the amount of working steps to be applied between jobs. Some of the working steps can include changing the print form, changing the ink profile or film thickness gradient in the inking unit of the printing device. With the printing jobs changing from one job to another, the system determines how to transition to the next job with the slightest amount of adjustment in the printing system. As described in Applicant's specification, the specification discloses establishing an order of adjustments and maintenance operations as changing the printing ink. However, other adjustment and maintenance

operations can be performed in order to transition a printing device to print a subsequent job besides the changing of printing ink. Since the reference of Zingher '468 discloses the feature of changing an ink profile and the reference can perform changing this profile using jobs of single color being transitioned to jobs of multiple colors, it is understood that the process of changing the printing ink in terms of color is performed. In terms of establishing an order of these operations, with each job, a certain change can occur. To transition from job 1 to job 2, a slight change in ink profile may be needed, then changing to job 3 may require a change in the printing form and a change to job 4 may require a film thickness gradient change in the inking unit. Since these different operations can be different depending on the content of the jobs, these operations change, but they have to be established when going from job to job in the system in order to ensure a minimum amount of work for the printing system while changing from job to job. Therefore, since several adjustment processes can occur for different jobs in different ways and this is established in order for the jobs to be processed, it is believed that the above feature is performed; See col. 3, ll. 57-67, col. 4, ll. 1-17, col. 8, ll. 15-67 and col. 9, ll. 1-17).

However, Zingher '468 fails to specifically teach wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job.

However, this is well known in the art as evidenced by Löffler '820. Löffler '820 discloses wherein the operations to be carried out during the job change are performed

on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job (i.e. in the cited portion, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink metering elements and ink duct rollers for removal of an old profile. With the performance of adjusting these two different elements, the newly added claim feature above is performed; see col. 5, lines 14-31).

Therefore, in view of Löffler '820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job, incorporated in the device of Zingher '468, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps which occur on different components of a printing press (as stated in Löffler '820 col. 4, ln 49-58).

Re claim 13: Zingher '468 discloses a printing press comprising:

a device for determining an optimum procedure for a job change between a first machine job and a subsequent machine job on a printing-material processing machine (the data processing device is used to perform the determination of an optimum procedure for a job change on a printing machine. The optimum procedure for the job

change is in terms of time, process and/or economy of materials; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49),

the device including at least one control computer comparing first data of a first machine job to second data of a subsequent machine job (i.e. in Zingher '468, the image contents of the print jobs, considered as the data of a machine job, are compared to one another. The above feature is performed since the image contents of individual print jobs are compared to one another in pairs or twos. This means that image contents of a first print job is compared to the image contents of a subsequent print job. The image contents are analogous to the first and second print data. This process is controlled by the data processing device, which is able to compare print jobs in pairs since an order of the processing of a current print job is based on the comparison of the current print job and the previous print job; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49), and

executing program steps as a function of the comparing step to establish an order of operations to be carried out during the job between the first machine job and the subsequent machine job (i.e. regarding the claim feature, the Zingher reference discloses re-sorting the print contents of jobs within the system by comparing the image contents of each job to one another in order to limit the amount of working steps to be applied between jobs. Some of the working steps can include changing the print form, changing the ink profile or film thickness gradient in the inking unit of the printing device. With the printing jobs changing from one job to another, the system determines how to transition to the next job with the slightest amount of adjustment in the printing system.

As described in Applicant's specification, the specification discloses establishing an order of adjustments and maintenance operations as changing the printing ink. However, other adjustment and maintenance operations can be performed in order to transition a printing device to print a subsequent job besides the changing of printing ink. Since the reference of Zingher '468 discloses the feature of changing an ink profile and the reference can perform changing this profile using jobs of single color being transitioned to jobs of multiple colors, it is understood that the process of changing the printing ink in terms of color is performed. In terms of establishing an order of these operations, with each job, a certain change can occur. To transition from job 1 to job 2, a slight change in ink profile may be needed, then changing to job 3 may require a change in the printing form and a change to job 4 may require a film thickness gradient change in the inking unit. Since these different operations can be different depending on the content of the jobs, these operations change, but they have to be established when going from job to job in the system in order to ensure a minimum amount of work for the printing system while changing from job to job. Therefore, since several adjustment processes can occur for different jobs in different ways and this is established in order for the jobs to be processed, it is believed that the above feature is performed; See col. 3, ll. 57-67, col. 4, ll. 1-17, col. 8, ll. 15-67 and col. 9, ll. 1-17).

However, Zingher '468 fails to specifically teach to establish wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job.

However, this is well known in the art as evidenced by Löffler ‘820. Löffler ‘820 discloses to wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job (i.e. in the cited portion, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink metering elements and ink duct rollers for removal of an old profile. With the performance of adjusting these two different elements, the newly added claim feature above is performed; see col. 5, lines 14-31).

Therefore, in view of Löffler ‘820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the operations to be carried out during the job change are performed on at least two different components of the printing press to prepare the at least two components for printing the subsequent machine job, incorporated in the device of Zingher '468, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps which occur on different components of a printing press (as stated in Löffler ‘820 col. 4, ln 49-58).

Re claim 17: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above. Zingher ‘468 discloses the method of claim 1 wherein the establishing of the order of operations is based solely on the comparing of the first data to the second data (i.e. in the system the print jobs are compared to each other in pairs, or one job to another job.

Once this comparison is performed by the system, the print jobs are order in an established manner and the operations, or working steps that are used to process those print jobs in the most efficient manner are also ordered. One job change to another may merit a change in printing form or ink profile. This change in either operation in the printing device depends on the comparison between the two jobs; see col. 3, lines 1-67 and col. 4, lines 1-17).

Re claim 18: The teachings of Zingher '468 in view of Löffler '820 are disclosed above. Zingher '468 discloses the method as recited in claim 1 wherein the establishing step includes determining if a first of the operation should occur prior to a second of the operations (i.e. in the system, the print processing of a certain job is performed before other print jobs. The printing operation of one print job can occur before other print jobs depending on the traits of the print job. With the system performing certain operations, such as the printing form, ink profile or film thickness, the change of these operations are performed depending on the order of the print jobs in the system. The different operations that are needed depend on the certain operations needed by the order of print jobs. For example, if a print job needs a change in the ink profile and this print job is first, while a second print job needs a change in film thickness, then the operation of changing the ink profile will occur first and the change in film thickness will occur second. This is an example of a printing process operation being determined to occur before or after a certain process; see col. 3, lines 1-67 and col. 4, lines 1-17).

Re claim 19: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above. Zingher '468 discloses the method as recited in claim 1 wherein the establishing step includes identifying adjustment and maintenance operations to be carried out during the job change between the first machine job and the subsequent machine job (i.e. regarding the claim feature, the Zingher reference discloses re-sorting the print contents of jobs within the system by comparing the image contents of each job to one another in order to limit the amount of working steps to be applied between jobs. Some of the working steps can include changing the print form, changing the ink profile or film thickness gradient in the inking unit of the printing device. With the printing jobs changing from one job to another, the system determines how to transition to the next job with the slightest amount of adjustment in the printing system. As described in Applicant’s specification, the specification discloses establishing an order of adjustments and maintenance operations as changing the printing ink. However, other adjustment and maintenance operations can be performed in order to transition a printing device to print a subsequent job besides the changing of printing ink. Since the reference of Zingher ‘468 discloses the feature of changing an ink profile and the reference can perform changing this profile using jobs of single color being transitioned to jobs of multiple colors, it is understood that the process of changing the printing ink in terms of color is performed. In terms of establishing an order of these operations, with each job, a certain change can occur. To transition from job 1 to job 2, a slight change in ink profile may be needed, then changing to job 3 may require a change in the printing form and a change to job 4 may require a film thickness gradient change in the

inking unit. Since these different operations can be different depending on the content of the jobs, these operations change, but they have to be established when going from job to job in the system in order to ensure a minimum amount of work for the printing system while changing from job to job. Therefore, since a certain adjustment process can occur for different jobs in different ways and this is established in order for the jobs to be processed, it is believed that the above feature is performed; See col. 3, ll. 57-67, col. 4, ll. 1-17, col. 8, ll. 15-67 and col. 9, ll. 1-17) and then determining when the adjustment and maintenance operations are to be carried out with respect to one another during the job change as a function of the comparing step (i.e. when determining how to change the operations in respect to comparing jobs, the system checks to see if a certain job can be placed between other jobs in order to determine what operations can be carried out in a printing sequence. Also, the system checks which adjustments associated with the job need to be performed during the job change in order to transition between jobs and have the least amount of work performed by the printing device as possible; see col. 3, line 3 – col. 4, line 17, col. 8, ll. 15-67 and col. 9, ll. 1-17).

Re claim 20: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above.

However, Zingher '468 fails to specifically teach the method as recited in claim 1 wherein the establishing step includes determining which steps can be performed concurrently and which steps must be performed consecutively.

However, this is well known in the art as evidenced by Löffler ‘820. Löffler ‘820 discloses wherein the establishing step includes determining which steps can be performed concurrently and which steps must be performed consecutively (i.e. in the system of Löffler ‘820, the system involves having multiple components within the printing press system operate in a concurrent manner. It also can decide to have some components work simultaneously while others are actuated after a certain process has been completed. For example, the system may concurrently adjust the ink metering devices concurrently while consecutively actuating the inking mechanism until the subsequent ink zone is substantially achieved; see col. 5, line 14 – col. 4, line 14).

Therefore, in view of Löffler ‘820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the establishing step includes determining which steps can be performed concurrently and which steps must be performed consecutively, incorporated in the device of Löffler ‘820, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps that are determined to occur simultaneously with other steps (as stated in Löffler ‘820 col. 4, ln 49-58).

Re claim 21: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the method as recited in claim 3 wherein the order of adjustments and maintenance operations depends on the number of operating personnel of the printing-material processing machine in such a manner that an

increased number of operating personnel results in an increased number of steps being performed concurrently.

However, this is well known in the art as evidenced by Löffler ‘820. Löffler ‘820 discloses wherein the order of adjustments and maintenance operations depends on the number of operating personnel of the printing-material processing machine in such a manner that an increased number of operating personnel results in an increased number of steps being performed concurrently (i.e. in the system of Löffler ‘820, operating personal is used to set up a new printing job. If one user is used to start a new printing job, there is only one set of processing steps associated from changing a job from one job to another. However, if there are multiple operators introducing multiple new jobs to the printing press, the printing press then has to perform multiple adjustments and maintenance operations to output each and every job introduced to the system; see col. 2, line 60 – col. 3, line 32).

Therefore, in view of Löffler ‘820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the order of adjustments and maintenance operations depends on the number of operating personnel of the printing-material processing machine in such a manner that an increased number of operating personnel results in an increased number of steps being performed concurrently, incorporated in the device of Zingher '468, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps associated with each subsequent job (as stated in Löffler ‘820 col. 4, ln 49-58).

Re claim 22: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the method as recited in claim 1 wherein a first component of the at least two components is an inking unit and a second component of the at least two components is a plate cylinder.

However, this is well known in the art as evidenced by Löffler ‘820. Löffler ‘820 discloses wherein a first component of the at least two components is an inking unit and a second component of the at least two components is a plate cylinder (i.e. in the system, the inking unit rotations are used to remove and add printing profiles on the inking unit and the through the decreasing of the direction of the printing plate, an appropriate ink addition gradient can be established for subsequent job printing; see col. 5, lines 14-32 and col. 11, lines 34-51).

Therefore, in view of Löffler ‘820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein a first component of the at least two components is an inking unit and a second component of the at least two components is a plate cylinder, incorporated in the device of Zingher '468, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps which occur on several printing components (as stated in Löffler ‘820 col. 4, ln 49-58).

Re claim 25: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the method as recited in claim 1 wherein a first component of the at least two components and a second component of the at least two components are driven independently of one another.

However, this is well known in the art as evidenced by Löffler ‘820. Löffler ‘820 discloses wherein a first component of the at least two components and a second component of the at least two components are driven independently of one another (i.e. in the system, the inking units (12) and the vibrator roller (24) can the inking duct rollers can be driven independently of one another; see col. 6, line 43 – col. 7, line 49).

Therefore, in view of Löffler ‘820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein a first component of the at least two components and a second component of the at least two components are driven independently of one another, incorporated in the device of Zingher '468, in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps actuated at certain times (as stated in Löffler ‘820 col. 4, ln 49-58).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler ‘820, as applied to claims 1, 8 and 13 above, and further in view of Rai '747 (US Pub No 2003/0149747).

Re claim 3: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above. Zingher '468 discloses the method wherein a number of printing-material is taken into account in the determination of the optimum procedure (i.e. when the system of Zingher

'468 evaluates the print jobs, the print jobs are compared in pairs and the overall number of print jobs are all compared to each other in order to determine an optimum procedure for print job change; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49).

However, Zingher '468 fails to teach a number of operating personnel of the printing-material processing machine is taken into account in the determination of the optimum procedure.

However, this is well known in the art as evidenced by Rai '747. Rai '747 discloses a number of operating personnel of the printing-material processing machine is taken into account in the determination of the optimum procedure (i.e. the reference of Rai '747 is used for producing print jobs using production devices, which is similar to the above references (same field of endeavor). However, in determining the resource requirements of each stage of the production process of the print job, the number of available operators is used in finding the requirements. The feature of using the number of operators in the system for the production process in Rai '747 incorporated with the process of finding the optimum procedure to perform during a job change in Zingher '468, performs the above feature; see paragraph [0029]).

Zingher '468 contains a "base" process of comparing several jobs to one another and establishing an order of adjustment and maintenance operations to be performed between jobs through the data processing device and printing press which the claimed invention can be seen as an "improvement" in that the number of operating personal of the printing press is taken into account in determining an optimal printing procedure.

Rai ‘747 contains the known technique of taking into account the operating personal of the printing production equipment in order to plan out the optimum printing procedure (see ¶ [0029) that is applicable to the “base” process.

Rai's known technique of taking into account the number of operating personal for determining the optimum printing procedure of a job would have recognized by one skilled in the art as applicable to the “base” process of Zingher ‘468 and the results would have been predictable and resulted in the number of operating personal of the printing press being taken into account in order to come up with the best printing plan for the job which results in an improved process.

Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler ‘820, as applied to claims 1, 8 and 13 above, and further in view of Yacoub '805 (US Pub No 2003/0011805).

Re claim 4: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

Zingher '468 teaches carrying out the order of processes of the optimum procedure (i.e. after the system of Zingher '468 compares the pairs of print jobs and finds the most suitable way to process the print jobs, the process is carried out to perform the optimum procedure; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49).

However, Zingher '468 fails to teach the method wherein a length of paths to be traveled by operating personnel of the printing-material processing machine while carrying out the order of processes is taken into account in the determination of the optimum procedure.

However, this is well known in the art as evidenced by Yacoub '805. Yacoub '805 discloses a length of paths to be traveled by operating personnel of the printing-material processing machine while carrying out the order of processes is taken into account in the determination of the optimum procedure (i.e. both references of Zingher and Yacoub are concerned with determining parameters to perform a procedure to process a print job (same field of endeavor). However, Yacoub '805 takes into account, while finding the most suitable printer to perform the print job, the closest printer to the user. The distance the user will travel has to be shortest possible to be convenient to the user. The feature of taking into account the distance the user has to travel of in Yacoub '805 incorporated with the determination of different factors in the optimum procedure while carrying out the order of processes in Zingher '468 performs the above feature; see paragraphs [0024] and [0025]).

Hence the prior art includes each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference.

In combination, Zingher ‘468 performs the same function as it does separately of carrying out the order of processes of the optimum procedure. Yacoub performs the

same function as it does separately of taking into account the length of paths traveled of those operating the printing device for an output.

Therefore, one of ordinary skill could have combined the elements by known methods, and that in combination, each element merely performs the same function as it does separately.

The results of the combination would have been predictable and resulted in modifying the invention of Zingher '468 to include taking into account the length of paths traveled by those operating the printing device, as disclosed in Yacoub '805, thereby making the shortest path possible to the closest printing device a priority as Yacoub discloses in ¶ [0024] and [0025].

Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

7. Claims 5, 6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler '820, as applied to claims 1, 8 and 13 above, and further in view of Bauer '461 (US Pub No 2001/0039461).

Re claim 5: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the method further comprising visually displaying the established order of processes to operating personnel.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses comprising visually displaying the established order of processes to operating personnel (i.e. like the references of Zingher '468 and Löffler '820, the Bauer reference

is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to visually display the established order of processes to operating personnel, incorporated in the device of Zingher ‘468, as modified by Löffler ‘820, in order to display individual or a number of printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

Re claim 6: The teachings of Zingher '468 in view of Löffler ‘820 and Bauer '461 are disclosed above.

However, Zingher '468 fails to teach the method wherein the operating personnel are guided through the individual steps of the calculated order of processes via one or more display devices mounted on the printing-material processing machine.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the operating personnel are guided through the individual steps of the calculated order of processes via one or more display devices mounted on the printing-material processing machine (i.e. like the references of Zingher ‘468 and Löffler ‘820, the Bauer reference is used to output print jobs using production equipment (same field

of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. The system of Bauer describes print jobs being calculated in the printing process before they are scheduled and coordinated. These scheduled and coordinated events are then displayed to the user. As the user desires to change the processes on the planning board (4) using the input element (5), the user can see the display of the planning board and use the “drag and drop” technology provided to see the individual steps of the processes and be guided through the process of the planning board (4). Bauer '461 incorporated with the feature of calculating the best order of processes to process a print job in Zingher '468 performs the above feature; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to have the operating personnel guided through the individual steps of the calculated order of processes via one or more display devices mounted on the printing-material processing machine, incorporated in the device of Zingher ‘468, as modified by Löffler ‘820, in order to display individual or a number of calculated printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

Re claim 9: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the device further comprising one or more display devices for displaying the order of operations.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the device further comprising one or more display devices for displaying the order of operations (i.e. like the references of Zingher ‘468 and Löffler ‘820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to have one or more display devices for displaying the order of operations, incorporated in the device of Zingher ‘468, as modified by Löffler ‘820, in order to display individual or a number of printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

Re claim 12: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the device further comprising a display device or a system for acoustic communication for communicating information or errors.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the device further comprising a display device or a system for acoustic

communication for communicating information or errors (i.e. like the references of Zingher ‘468 and Löffler ‘820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. This information is used to communicate information to the user or operating personnel and this system is also capable of displaying operating errors to the user; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to have a display device or a system for acoustic communication for communicating information or errors, incorporated in the device of Zingher ‘468, as modified by Löffler ‘820, in order to display individual or a number of printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

8. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by Löffler ‘820 and Bauer '461, and further in view of Tada ‘652 (USP 4572652).

Re claim 7: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the method wherein the established order of processes is communicated to operating personnel.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the established order of processes is communicated to operating personnel (i.e. like the references of Zingher ‘468 and Löffler ‘820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. This information is used to communicate information to the user or operating personnel and this system is also capable of displaying operating errors to the user; see fig.1; paragraphs [0020] and [0029]-[0032]).

However, Zingher '468 in view of Bauer '461 fails to teach in acoustic form.

However, this is well known in the art as evidenced by Tada ‘652. Tada ‘652 discloses in acoustic form (i.e. the system of Tada ‘652 is similar to the systems of Bauer and Zingher in the manner in which all systems are concerned with outputting print data (same field of endeavor). However, Tada ‘652 discloses system that allows for the printing system to communicate necessary operation steps to the operator using the printing device. The printing device indicates to the operator what steps to perform in the output process. This performs the feature of communicating auditory instructions to a user in the operation of a printing device; see col. 1, ll. 57-64).

Therefore, in view of Tada ‘652, it would have been obvious to one of ordinary skill at the time the invention was made to have the established order of processes is communicated to operating personnel in acoustic form, incorporated in the device of Zingher ‘468, as modified by the features of Löffler ‘820 and Bauer '461, in order to

indicate to an operator what operation steps to perform next in the printing process (as stated in Tada ‘652 col. 1, ll. 10-14).

Re claim 10: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the device further comprising a system for communication of the established order of operations to operating personnel.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses a system for communication of the established order of operations to operating personnel (i.e. Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. This information is used to communicate information to the user or operating personnel and this system is also capable of displaying operating errors to the user; see fig.1; paragraphs [0020] and [0029]-[0032]).

However, Zingher '468 in view of Bauer '461 fails to teach acoustic communication.

However, this is well known in the art as evidenced by Tada ‘652. Tada ‘652 discloses acoustic communication (i.e. the system of Tada ‘652 is similar to the systems of Bauer and Zingher in the manner in which all systems are concerned with outputting print data (same field of endeavor). However, Tada ‘652 discloses system that allows for the printing system to communicate necessary operation steps to the operator using the printing device. The printing device indicates to the operator what steps to perform

in the output process. This performs the feature of communicating auditory instructions to a user in the operation of a printing device; see col. 1, ll. 57-64).

Therefore, in view of Tada ‘652, it would have been obvious to one of ordinary skill at the time the invention was made to have a system for acoustic communication of the established order of operations to operating personnel, incorporated in the device of Zingher ‘468, as modified by the features of Löffler ‘820 and Bauer '461, in order to indicate to an operator what operation steps to perform next in the printing process (as stated in Tada ‘652 col. 1, ll. 10-14).

9. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, modified by Löffler ‘820, Bauer '461 and Tada ‘652, and further in view of Silvester (US Pub No 2003/0161292).

Re claim 11: The teachings of Zingher '468, modified by Löffler ‘820, Bauer '461 and Tada ‘652 are disclosed above.

Zingher '468 teaches the device wherein the system connected to the control computer (i.e. the data processing device includes a processor that controls the determination of the order of processing the print jobs; see col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49).

However, Zingher '468 in view of Bauer '461 fails to teach a system for acoustic communication.

However, this is well known in the art as evidenced by Tada ‘652. Tada ‘652 discloses a system for acoustic communication (i.e. the system of Tada ‘652 is similar to

the systems of Bauer and Zingher in the manner in which all systems are concerned with outputting print data (same field of endeavor). However, Tada '652 discloses system that allows for the printing system to communicate necessary operation steps to the operator using the printing device. The printing device indicates to the operator what steps to perform in the output process. This performs the feature of communicating auditory instructions to a user in the operation of a printing device; see col. 1, ll. 57-64).

Therefore, in view of Tada '652, it would have been obvious to one of ordinary skill at the time the invention was made to have a system for acoustic communication, incorporated in the device of Zingher '468, as modified by the features of Löffler '820 and Bauer '461, in order to indicate to an operator what operation steps to perform next in the printing process (as stated in Tada '652 col. 1, ll. 10-14).

However, Zingher '468, modified by Bauer '461, and further in view of Tada '652 fails to teach includes at least one headset wirelessly.

However, this is well known in the art as evidenced by Silvester '292. Silvester '292 discloses a system for acoustic communication includes at least one headset wirelessly connected to the control computer (i.e. the system of Silvester is similar to the reference of Zingher in the manner in which Zingher's printing device communicates with a remote device that processes data(same field of endeavor). However, Silvester '292 discloses a wireless headset and other wireless devices connected to a computer. With the host computer being able to send information to the other wireless devices for

control coupled with the audible signals of Tada '652, the above claim limitation is performed; see ¶ [0045]-[0047]).

Therefore, in view of Silvester ‘292, it would have been obvious to one of ordinary skill at the time the invention was made to have a system for acoustic communication includes at least one headset wirelessly connected to the control computer in order to have a wireless headset able to receive information from a computer from various audio sources (as stated in Silvester ‘292 at ¶ [0031]).

10. Claims 14, 15, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler ‘820, as applied to claims 1, 8 and 13 above, and further in view of Pfeiffer '102 (USP 5447102).

Re claim 14: The teachings of Zingher '468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the printing press further comprising at least one main drive for driving printing cylinders and plate cylinders or a blanket cylinder as well as separately driven inking units and inking rollers that can be turned off.

However, this is well known in the art as evidenced by Pfeiffer '102. Pfeiffer '102 discloses the printing press further comprising at least one main drive for driving printing cylinders and plate cylinders or a blanket cylinder (i.e. the invention of Pfeiffer is similar to the Zingher reference in the manner in which the invention uses printing production devices to output printed data (same field of endeavor). However, looking at figure 1A, the press drive (25) drives both the plate cylinder (11) and the blanket cylinder (16). These components have their own separate drivers; see fig. 1A; col. 5, lines 50-66 and

col. 6, lines 1-67) as well as separately driven inking units and inking rollers that can be turned off (i.e. the inking units (12) have associated ink rollers (32) and the vibrator roller drive (29) with the application throw-off drives the ink applicator rollers. These same ink applicator rollers can be turned off as well; see col. 6, lines 1-46 and col. 8, lines 34-57).

Therefore, in view of Pfeiffer '102, it would have been obvious to one of ordinary skill at the time the invention was made to have a printing press comprising at least one main drive for driving printing cylinders and plate cylinders or a blanket cylinder as well as separately driven inking units and inking rollers that can be turned off in order to have a printing unit apart of a rotary printing press comprised of several parts that are adjusted for the processing of a subsequent job (as stated in Pfeiffer '102 col. 5, lines 5-54).

Re claim 15: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the printing press further comprising individual drives for driving cylinders or additional components.

However, this is well known in the art as evidenced by Pfeiffer '102. Pfeiffer '102 discloses the printing press further comprising individual drives for driving cylinders or additional components (i.e. the invention of Pfeiffer is similar to the Zingher reference in the manner in which the invention uses printing production devices to output printed data (same field of endeavor). However, the press drive is an example of an individual drive for the printing cylinder that will drive the printing cylinder to rotate. The other

individual drives for the additional components can include the drives for the inking unit and the respective ink rollers; see fig. 1A; col. 5, lines 50-66 and col. 6, lines 1-67).

Therefore, in view of Pfeiffer '102, it would have been obvious to one of ordinary skill at the time the invention was made to have individual drives for driving cylinders or additional components in order to auxiliary mechanisms to drive different components in the printing unit (as stated in Pfeiffer '102 see col. 5, lines 50-54 and col. 6, lines 40-46).

Re claim 23: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, the combination of Zingher '468 and Löffler ‘820 fails to specifically teach the method as recited in claim 1 wherein one of the at least two components is an offset printing cylinder.

However, this is well known in the art as evidenced by Pfeiffer '102. Pfeiffer '102 discloses wherein one of the at least two components is an offset printing cylinder (i.e. the system of Pfeiffer discloses the feature of having the blanket roller cleaned by one command to perform adjustments and maintenance steps on the overall device. Since the blanket cylinder contains the blanket for printing and the offset printing cylinder is analogous to the blanket cylinder, the Pfeiffer invention performs the feature of having one of the components as an offset printing cylinder; see col. 3, lines 6-33).

Therefore, in view of Pfeiffer '102, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein one of the at least two components is an offset printing cylinder, incorporated in the device of Zingher '468, as modified by the device of Löffler ‘820, in order to have a certain printing press

elements cleaned after entering a command in the system (as stated in Pfeiffer '102 col. 3, lines 16-27).

Re claim 24: The teachings of Zingher ‘468 in view of Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the method as recited in claim 1 wherein one of the at least two components is a coating unit.

However, this is well known in the art as evidenced by Pfeiffer '102. Pfeiffer '102 discloses wherein one of the at least two components is a coating unit (i.e. the system of Pfeiffer discloses the feature of having the blanket roller cleaned by one command to perform adjustments and maintenance steps on the overall device. Since the blanket cylinder contains the blanket for printing, makes up the coating unit and the offset printing cylinder is analogous to the blanket cylinder, the Pfeiffer invention performs the feature of having one of the components as a coating unit; see col. 3, lines 6-33).

Therefore, in view of Pfeiffer '102, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein one of the at least two components is a coating unit, incorporated in the device of Zingher '468, as modified by the device of Löffler ‘820, in order to have a certain printing press elements cleaned after entering a command in the system (as stated in Pfeiffer '102 col. 3, lines 16-27).

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher ‘468 in view of Löffler ‘820, Bauer ‘461 and Jackson ‘848.

Re claim 16: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

Zingher ‘468 discloses the method as recited in claim 1, wherein the establishing step includes accessing durations of operations (i.e. the reference of Zingher reveals executing steps during the job change that takes the minimal (optimal) time as possible. The Zingher reference discloses taking into account readjustment times in order to define an optimal job sequence. The readjustment times relate to the time that will be needed to adjust from one job to another. This involves changing the ink demand or the film ink thickness gradient, depending on the image data in the system; see col. 8, ll. 57-64).

However, Zingher ‘468 fails to teach the method as recited in claim 1 wherein the establishing step includes accessing a table containing durations of the operations.

However, this is well known in the art as evidenced by Bauer '461. Bauer ‘461 discloses wherein the establishing step includes accessing a table containing the operations (i.e. in Bauer '461, the memory unit (13) contains planning data that can be accessed by the production unit in the system. The memory unit is considered as a table since it is accessed and it contains information that is used in the production sequence related to the printing processes; see paragraphs [0012]-[0015] and [0027]-[0031]).

Therefore, in view of Bauer ‘461, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of wherein the establishing step includes accessing the table containing the operations, incorporated in the device of Zingher ‘468, as modified by the features of Löffler ‘820, in order to make

planning data available to be called up by production when scheduling and coordinating a print job (as stated in Bauer '461 paragraphs [0027]-[0030]).

However, Zingher '468 in view of Bauer '461 fails to teach containing durations of the operations.

However, this is well known in the art as evidenced by Jackson '848. Jackson '848 discloses containing durations of the operations (i.e. like the reference of Bauer, the Jackson reference is concerned with the workflow and coordination of jobs in the system. Like the Zingher reference, the Jackson reference is concerned with producing printed material from print jobs (same field of endeavor). However, information regarding the speed and time required for the machines to perform various operations is contained in the job cost module (14). With the combination of a memory unit of Bauer containing a unit that is accessible and has information regarding operations combined with the feature of containing information on the time required to perform an operation in the Jackson reference, the above feature is performed; see col. 5, lines 13-39).

Therefore, in view of Jackson '848, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of containing durations of the operations, incorporated in the device of Zingher '468, as modified by the features of Löffler '820 and Bauer '461, in order to have information regarding the time required for machines to perform various operations accessed within a table or module whenever needed (as stated in Jackson '848 col. 5, lines 13-39).

(10) Response to Argument

On page 10 of the Appeal Brief, the first assertion stated the "establishing" step as a function of the comparing step in the independent claims is not performed. The Examiner disagrees with this allegation based on several passages within the Zingher '468 reference. Column 3 discloses comparing images within separate jobs for determining the necessary changes to be performed in between, which prepares the system to carry out a subsequent job[1]. Zingher further discloses making sure that the working steps that are actuated to prepare the printing system to transition between jobs be the smallest amount of steps as possible to decrease the amount of processing steps actuated in the system[2]. The different steps that can happen between jobs, or during a job change, can be changing an ink profile, changing an inking unit film thickness gradient, or both[3]. These operations are considered as adjustment and maintenance operations. A single or several steps can happen when transitioning from one job to another. The number of steps chosen between jobs creates an arrangement, or order, that can be considered as an order of adjustment and maintenance operations since the system may choose to only adjust the ink profile, to adjust the inking unit film thickness gradient, or both for the transitioning from one job to the next.

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[1] See Zingher '468 at col. 3, ll. 8-61.
[2] Id. at col. 3, ll. 62-col. 4, ll. 17.
[3] Id. at col. 4, ll. 1-7.

Regarding the Appellant's assertion of the Office action implication of inherency, the Examiner disagrees that any indication of inherency is being made. The Examiner believes that this feature is clearly performed by the Zingher reference. If the Zingher reference does not arrange a step or steps in order to transition between jobs, then the system would not work as efficient. However, assuming arguendo, that the argument regarding the Zingher reference is not persuasive, the Examiner believes that the Löffler '820 discloses the feature of the "establishing" step based on comparing print jobs as well. As disclosed in the Löffler '820 reference in column 12, the system determines how to adjust from one ink profile to another. Depending on the comparison between the previous and subsequent job, the system performs (1) no adjustment of ink profiles, (2) removal of ink from the ink zone and setting the ink strip length to b_{max} or (3) addition of ink to at least one ink zone and setting the ink strip length to b_{set}.[4] If condition (2) is set because the comparison results in a positive difference in the ink zone volume, the order of operations performed is removing ink from a zone and further steps used to set the maximum strip length, which are determined by the system[5]. The previous example illustrates the disclosed feature of setting an arrangement or order of adjustment and maintenance operations based on the condition chosen or difference in inking profiles between jobs. Therefore, in either case, the Examiner believes the "establishing" step is performed based on comparing jobs.

[4] See Löffler '820 at col. 12, ll. 36-64.
[5] Id. at col. 13, ll. 1-53.

Lastly, the Examiner believes that the Löffler '820 reference still teaches the job change being performed on at least two different components on the printing press. As clearly disclosed in the Office Action (hereinafter referred to as "OA") page 9, the ink duct rollers are set to a calculated ink strip length and the ink metering elements are adjusted by zones to the required ink profile[6]. The adjusting and maintenance operations are performed on these components to transition the printing press to output the subsequent job.

Regarding claim 18 (on page 12 of brief), the Löffler '820 reference performs this feature since, as disclosed in column 8, the invention actuates the method of transferring ink back to the ink reservoir. Embodiments 1A, 1B or 1C reveal two operations with the vibrator roller, printing elements or both being performed before printing revolutions or inking unit rotations to get rid of the old profile and establish a base ink layer for a new ink profile[7]. These three embodiments illustrate which operation occurs before the printing revolutions are actuated to setup a base ink layer. This also reads on claim 19 (page 13 of brief), since these embodiments disclose determining which step will occur before a certain number of printing revolutions to be performed after the actuation of the vibrator roller, printing elements or both.

[6] Id. at col. 5, ll. 14-31 and col. 13, ll. 1-53.
[7] Id. at col. 8, ll. 26-65.

Regarding claim 20 (page 14 of brief), in column 4 and column 5, the Löffler '820 reference mentions an accelerated removal of a current ink profile. These passages state with simultaneous paper flow, several steps are performed[8]. With the above mentioned statement, it should be clear that steps within the invention of Löffler are performed simultaneous with other steps. Column 5 also talks about processes occurring at the end of ink profile removal. Since one thing occurs at the end of another, this should convey that the printing device of Löffler performs consecutive process steps during the preparation of the printing system for another job.

In response to the arguments relating to claim 21 (on page 15 of brief), the Examiner disagrees with the assertion made by the Appellant that the claim limitation is not performed. If one user inputs a job and no other jobs are to be processed, the order of adjustment and maintenance operations consists of the removal of the ink profile and the printing machine being stopped. The printing machine stops since no other jobs are to be processed after the proceeding job[9]. However, if another user introduces a job to the printing system, the press has to perform steps to prepare the printing press for the next job. These steps are based on the condition of how similar the two jobs are. In addition, the steps to prepare the next job are more than the steps to prepare for no other job. Thus, the more users that introduce jobs to the system that are dissimilar, the more steps that are concurrently performed to transition from one job to the next.

[8] Id. at col. 4, ll. 59-col. 5, ll. 31.

In regards to the assertion made to claims 22 and 25 (on page 16 of brief), the Examiner believes these limitations are performed as well. In order to prepare for the subsequent job in the system, the previous and subsequent jobs have to be compared to see if the differences in the profiles are substantial[10]. The result of the difference will dictate the next course of action for the printing press. Given that the adjustment and maintenance functions occur on several parts of the press and occur independently of one another, the Appealed features are still believed to be disclosed[11].

Regarding claim 8 (on pages 17-19 of brief), the same response in the first paragraph of this section in regards to the "establishing" step applies to this claim, but the Examiner would like to specifically address the allegation regarding the lack of a computer. Both systems contain computers that can be used to compare jobs as seen in Zingher column 4 and Löffler column 3.[12] Assuming arguendo that Zingher '468 fails to disclose the "establishing" step of ordering adjustment and maintenance operations using a computer, the reference of Löffler '820 is believed to clearly perform this feature. Löffler mentions a computer that stores values to be used for controlling the operations during the job change process. Löffler also discloses a computer controlling the process in earlier portions of the patent[13].

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[9] Id. at col. 4, ll. 49-58.
[10] Id. at col. 12, ll. 36-64.
[11] See OA referring to claims 22 and 25.
[12] See Zingher '468 at col. 4, ll. 48-67 and See Löffler '820 at col. 3, ll. 33-59.

[13] See Löffler '820 at col. 2, ll. 14-20.

In reference to Zingher, a data processing device, which controls the operations during the job change, can be considered as a control computer[14]. As disclosed in column 4, ll. 1-17, the system can perform changing the ink profile, film thickness gradient, or both. The system might decide to perform one step, the other step or both, which can be considered as establishing the order of operations of adjustment and maintenance tasks. Therefore, the Examiner believes that the features of claim 8 are performed with the use of a control computer.

In addition, as disclosed in column 5, ll. 14-31, the ink duct rollers and ink metering units are involved in the order of operations that are apart of the adjustment and maintenance operations. Again, since the changing of printing profiles is based on comparing print profiles, the operations based on this comparison are performed.

Regarding claim 3 (on page 22 of brief), the Examiner believes this feature is performed. The Zingher reference discloses performing one step in the order of adjusting the system to perform the subsequent job, or it performs several steps. The order can be changed from only dealing with the ink profile through machine revolutions and other tasks to dealing with changing both the ink profile and the film thickness gradient[15]. This discloses the steps of establishing an order of adjustment and maintenance operations to be performed to prepare for a next job.

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[14] See Zingher '468 at col. 4, ll. 51-col. 5, ll. 49.
[15] Id. at col. 4, ll. 1-17 and col. 9, ll. 1-17.

The Rai reference is combined with the Zingher, since Rai and the primary reference involve a computer located remotely from the printing devices that introduce parameters that dictate printing jobs. Both the data processing devices of Zingher and workstations of Rai introduce print jobs to the printing devices[16]. Dependent claim 3 discloses an improvement over the base process of Zingher. The Rai reference contains the known technique of taking the number of available operators into account when determining the optimal procedure to output and finish (e.g. post-processing such as stapling) the print job in question. This known technique incorporated into the base process of Zingher would have resulted in taking into account the number of operators involved in the printing process through the introduction or processing of jobs for printing and finishing to the device with the best possible printing process through the central policy[17]. This combination results in the improved process of the dependent claim. Therefore, the claim subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

[16] See Rai '747 at ¶ [0029].
[17] Id.

Regarding claim 4 (on page 23 of brief), the Examiner believes that the claim limitation is performed in view of the combination of Zingher, Löffler and Yacoub. It is clear that the combination of Zingher and Löffler disclose the feature of an "establishing" step with the comparison of two jobs. However, it is not explicitly stated that the combination teaches taking into account the length of paths to be traveled by the operating personal of the printing press. The Yacoub reference is cited in the OA to cure this deficiency.

As disclosed in the background of Zingher, it is well known to have a plurality of printers used to output print jobs[18]. With a plurality of printers it might be possible to have the user utilize the closet printer in proximity to the remote data processing device as stated in column 5.[19] Zingher does not take into account this information since Zingher is concerned about making printing machines, such as offset printing machines, more efficient during job changes[20]. Yacoub takes the concept of making sure getting to the nearest printer is a priority by taking into account the distance or length a user has to go to a certain printer[21].

[18] See Zingher '468 at col. 1, ll. 1-28.
[19] Id. at col. 5, ll. 8-22.
[20] Id. at col. 8, ll. 50-57.
[21] See Yacoub '805 at ¶ [0024] and [0025].

Since both references perform their respective functions separately and the only difference is the lack of all limitations being in a single prior art reference, the Examiner concludes that the prior art includes each claimed element in claim 4. Therefore, one of ordinary skill could have combined the elements by known methods, and that in combination, each element merely performs the same function as it does separately, and the results would have been predictable.

In addition, although the process of printing may occur in an automatic system, the system may involve a user to manually enter in information that may affect the printing process.

When referring to claims 4-6 (on brief pages 23-25), does the order of processes refer to the adjustment and maintenance operations or do they refer to some other order of jobs that are to be processed within the printing device? Although the Examiner used the former interpretation in the examination of the claims, the limitations do not make a specific connection between the order of adjustment and maintenance operations to be carried out during a job change and carrying out the order of processes on a printing-material processing machine.

In reference to claims 5 and 6, the Examiner combined the reference of Bauer with the combination of Zingher and Löffler. The Bauer reference displays a number of coordinated and scheduled processes related to the production process. With the display in Bauer used to show scheduled production process steps to the user and calculating the sequence of job elements displayed, the Examiner believes that the combination including Bauer discloses the claim features of claims 5 and 6.[22] As disclosed in Bauer, the reference shows a user the printing processes, which can be considered as an order of processes[23]. Through the use of the planning board, a user can be guided through the printing process steps that are to occur on the system. These steps can also be modified. Based on the above, the Examiner believes that the limitations in claims 5 and 6 are still disclosed by the combination.

[22] See Bauer '461 at ¶ [0012]-[0020].
[23] Id. at ¶ [0013] and [0020].

Regarding the claims 23 and 24 (on page 27 and 28 of the brief), the Examiner still believes that the claim limitations are disclosed by the combined references. As stated in the OA, the system of Pfeiffer discloses the feature of having the blanket roller cleaned by one command to perform adjustments and maintenance steps on the overall device. Since the blanket cylinder contains the blanket for printing and the offset printing cylinder is analogous to the blanket cylinder, the Pfeiffer invention performs the feature of having one of the components as an offset printing cylinder. In addition, because the blanket cylinder contains the blanket for printing, which makes up the coating unit, and the offset printing cylinder is analogous to the blanket cylinder, the Pfeiffer invention performs the feature of having one of the components as a coating unit is involved in the adjustment process[24]. Therefore, with the combination of the above references, the claim limitations are performed.

[24] See Pfeffier '102 at col. 3, ll. 6-33.

Regarding claim 16 (on page 29 of the brief), the combination of Zingher, Löffler and Jackson is still believed to disclose the claim limitation. The reference of Zingher reveals executing steps during the job change that takes the minimal (optimal) time as possible. The Zingher reference discloses taking into account readjustment times in order to define an optimal job sequence[25]. The readjustment times relate to the time that will be needed to adjust from one job to another. This involves changing the ink demand or the film ink thickness gradient, depending on the image data in the system. This reads on times that are relevant and are referred to by the Zingher reference.

In combination, the Jackson reference contains a module that stores speeds and times of processes that occur during production of documents[26]. The combination would yield a module that stored the speed and time it would take to perform processing operations that occur between jobs. This would benefit the modified Zingher system since a module could be referred to for determining the periods of adjustment from one job to another.

Therefore, in view of the above arguments, the Examiner still believes that the claim limitations are all disclosed by the combined references.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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[25] See Zingher '468 at col. 8, ll. 57-64.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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[26] See Jackson '848 at col. 5, ll. 13-35.